

Environmental Protection Agency 2021 Targeted Airshed Grant Program LowNO_x Heavy-Duty Trucks Replacement

Emissions Inventories

The California Air Resources Board (ARB) and San Joaquin Valley Unified Air Pollution Control District (District) have developed a comprehensive, accurate, and current emissions inventory consistent with the requirements set forth in Section 182(a)(1) of the federal Clean Air Act in order to assist in achieving projected emissions for the nonattainment area and key source categories. Emissions inventories are one of the fundamental building blocks in the development of the District's State Implementation Plan. ARB and District staff conducted a thorough review of the inventory to ensure that the emission estimates reflect accurate emission reports for point sources, and that estimates for mobile and area-wide sources are based on the most recent models and methodologies. Staff also reviewed the growth profiles for point and area wide source categories, and updated them as necessary to ensure that the emission projections are based on data that reflect historical trends, current conditions, and recent economic and demographic forecasts.

The following table shows the major diesel sources in the San Joaquin Valley and the tons of emissions they produce each day, according to the emission inventories in the District's *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards*.

Source	NO _x (tons/day)	Percent of total NO _x	PM _{2.5} (tons/day)	Percent of total PM _{2.5}
<i>Total On-Road Motor Vehicles</i>	<i>99.7</i>	<i>58%</i>	<i>3.4</i>	<i>40%</i>
Light & Medium Duty	4.4	3%	1.7	20%
Heavy Duty	95.3	55%	1.7	20%
<i>Total Off-Road and Other Mobile Sources</i>	<i>72.9</i>	<i>42%</i>	<i>5.2</i>	<i>60%</i>
Total Emissions from Mobile Sources	172.6		8.8	

By replacing approximately 96 trucks that will be domiciled in San Joaquin, Stanislaus, Fresno and Tulare Counties, this project will reduce exposure to directly emitted PM_{2.5} in these highly vulnerable environmental justice communities with an anticipated annual health benefit of \$420,000 in the form of reduced health care costs, missed days of school and work, and reduced mortality from air pollution, as calculated by the Diesel Emission Quantifier.

The emission inventories for the San Joaquin Valley Air Basin can be found in Appendix B of the publicly available *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards* at: <https://www.valleyair.org/pmplans/documents/2018/pm-plan-adopted/B.pdf>.